Literatura ACTA MEDICINAE 8–9/2025 Pneumoonkologie | Pneumologie

2 Malobuněčný karcinom plic – lze uvěřit v definitivní vyléčení systémovou léčbou? Kazuistika
prof. MUDr. Miloš Pešek, CSc. Klinika pneumologie a ftizeologie, FN a LF UK, Plzeň

2 Léčba časných, operabilních stadií nemalobuněčného karcinomu plic
MUDr. Leona Koubková Pneumologická klinika, 2. LF UK a FN v Motole, Praha

2 Léčba metastatického nemalobuněčného karcinomu plic s prokázanými genetickými aberacemi
MUDr. Marie Drösslerová Pneumologická klinika, 1. LF UK a Fakultní Thomayerova nemocnice, Praha

3 Léčba metastatického nemalobuněčného karcinomu plic bez řídicích mutací
MUDr. Bohdan Kadlec Klinika nemocí plicních a tuberkulózy, LF MU a FN Brno

3 ALK pozitivní nemalobuněčný plicní karcinom s mozkovými metastázami léčený lorlatinibem v první linii
MUDr. Alžběta Bejčková Pneumologická klinika, 2. LF UK a FN v Motole, Praha
MUDr. Leona Koubková Pneumologická klinika, 2. LF UK a FN v Motole, Praha

3 Očkování proti pneumokokům u pneumologických pacientů
doc. MUDr. Václava Bártů, Ph.D. Plicní oddělení, Medicon, a. s., Praha

3 CHOPN a asthma bronchiale v roce 2025
doc. MUDr. Norbert Pauk, Ph.D. Klinika pneumologie, 3. LF UK a Fakultní nemocnice Bulovka, Praha

4 Symptomatická léčba astmatu
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doc. MUDr. Jaromír Bystroň, CSc. Oddělení alergologie a klinické imunologie, FN Ostrava, Ústav laboratorní medicíny, LF OU, Ostrava

4 Novinky v biologické léčbě bronchiálního astmatu
MUDr. Ondřej Fibigr Klinika pneumologie a ftizeologie, FN a LF UK, Plzeň

4 Tezepelumab v léčbě pacientů s chronickou rinosinusitidou s nosními polypy
MUDr. Zdeněk Knížek Klinika otorinolaryngologie a chirurgie hlavy a krku, Nemocnice Pardubického kraje – Pardubická nemocnice; Lékařská fakulta UK v Hradci Králové

5 Léčba syndromu obstrukční spánkové apnoe – up-to-date v roce 2025
doc. MUDr. Samuel Genzor, Ph.D. Klinika plicních nemocí a tuberkulózy, Fakultní nemocnice a LF Univerzity Palackého, Olomouc

5 Současné a budoucí farmakologické metody léčby idiopatické plicní fibrózy
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6 Sekundární imunodeficience
prof. MUDr. Anna Šedivá, DrSc. Ústav imunologie, 2. LF UK a FN v Motole, Praha

6 Aktuální strategie prevence vzniku závažných forem infekce RSV u dětí
prof. MUDr. Zbyněk Straňák, CSc., MBA | MUDr. Linda Jamrichová
Neonatologická klinika Ústavu pro péči o matku a dítě a 3. LF UK, Praha

6 Imunomodulační možnosti prevence recidivujících infekcí
doc. MUDr. Jaromír Bystroň, CSc. Oddělení alergologie a klinické imunologie, FN a LF OU, Ostrava

6 Reportáž GSK: Společný pokrok dlouhodobé inovativní léčby HIV

Malobuněčný karcinom plic – lze uvěřit v definitivní vyléčení systémovou léčbou? Kazuistika

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1 **Farago, A. F. – Keane, F. K.**: Current standards for clinical management of small cell lung cancer. *Transl Lung Cancer Res*, 2018, 7, s. 69–79.
2 **Stahel, R. A., et al.**: Staging and prognostic factors in small cell lung cancer: a consensus report. *Lung Cancer*, 1989, 5, s. 119–126;
3 National Cancer Institute. Small Cell Lung Cancer Treatment (PDQ®) – Health Professional Version. Dostupné z: https://www.cancer.gov/types/lung/hp/small-cell-lung-treatment-pdq, vyhledáno 24. 5. 2025.
4 **Früh, M. – De Ruysscher, D. – Popat, S., et al.**: Small-cell lung cancer (SCLC): ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol*, 2013, 24, suppl. 6, vi99–105.
5 National Comprehensive Cancer Network, Inc. NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines) for Small Cell Lung Cancer version 1.2021. Dostupné z: https://www.nccn.org/professionals/physician_gls/pdf/sclc_blocks.pdf, vyhledáno 24. 5. 2025.
6 **Hurwitz, J. L., et al.**: New advances in the second-line treatment of small cell lung cancer. *Oncologist*, 2009, 14, s. 986–994.
7 **de Jong, W. K., et al.**: Third-line chemotherapy for small cell lung cancer. *Lung Cancer*, 2006, 52, s. 339–342.
8 **Froeschl, S., et al.**: Outcomes of second-line chemotherapy in patients with relapsed extensive small cell lung cancer. *J Thorac Oncol*, 2008, 3, s. 163–169.
9 **Aktas, G., et al.**: Survival analysis in second-line and third-line chemotherapy with irinotecan followed by topotecan or topotecan followed by irinotecan for extensive-stage small-cell lung cancer patients: a single-center retrospective study. *Onco Targets Ther*, 2016, 9, s. 1921–1926.
10 **Howlader, N., et al.**: The effect of advances in lung-cancer treatment on population mortality. *N Engl J Med*, 2020, 383, s. 640–649.
11 **Guinee, D. G., et al.**: The spectrum of immunohistochemical staining of small-cell lung carcinoma in specimens from transbronchial and open-lung biopsies. *Am J Clin Pathol*, 1994, 102, s. 406–414.
12 **Dorantes-Heredia R., et al.**: Histopathological transformation to small-cell lung carcinoma in non-small cell lung carcinoma tumors. *Transl Lung Cancer Res*, 2016, 5, s. 401–412.
13 **Thunnissen, E., et al.**: The use of immunohistochemistry improves the diagnosis of small cell lung cancer and its differential diagnosis. An international reproducibility study in a demanding set of cases. *J Thorac Oncol*, 2017, 12, s. 334–346.
14 **Oser, M. G., et al.**: Transformation from non-small-cell lung cancer to small-cell lung cancer: molecular drivers and cells of origin. *Lancet Oncol*, 2015, 16, s. e165–e172.
15 **Marcoux, N., et al.**: EGFR-mutant adenocarcinomas that transform to small-cell lung cancer and other neuroendocrine carcinomas: clinical outcomes. *J Clin Oncol*, 2019, 37, s. 278–285.
16 **Ou, S. H., et al.**: Prognostic factors for survival in extensive stage small cell lung cancer (ED-SCLC): the importance of smoking history, socioeconomic and marital statuses, and ethnicity. *J Thorac Oncol*, 2009, 4, s. 37–43.
17 American Cancer Society. Small Cell Lung Cancer Causes, Risk Factors, and Prevention. Dostupné z: https://www.cancer.org/content/dam/CRC/PDF/Public/8709.00.pdf, vyhledáno 23. 5. 2025.
18 **Pesch, B., et al.**: Cigarette smoking and lung cancer–relative risk estimates for the major histological types from a pooled analysis of case-control studies. *Int J Cancer*, 2012, 131, s. 1210–1219.
19 **Pešek, M. – Mužík, J.**: Malobuněčný karcinom plic: epidemiologie, diagnostika a léčba. *Vnitř Lék*, 2017, 63, s. 876–883.
20 **Noone, A. M., et al.**: *SEER Cancer Statistics Review (CSR) 1975–2018*. 2021, National Cancer Institute.

Léčba časných, operabilních stadií nemalobuněčného karcinomu plic

MUDr. Leona Koubková Pneumologická klinika, 2. LF UK a FN v Motole, Praha

1 **Dipesh Uprety – West, H. J.**: Perioperative therapy for resectable non–small–cell lung cancer: weighing options for the present and future. *JCO Oncol Pract*, 2023, 19, s. 403–409.
2 **D'Aiello, A. – Stiles, B. – Ohri, N., et al.**: Perioperative immunotherapy for non-small cell lung cancer: practical application of emerging data and new challenges. *Clin Lung Cancer*, 2024, 25, s. 197–214.
3 **Zhang, O. – Duan, J. – Zhang, Y., et al.**: Perioperative or neo/adjuvant chemoimmunotherapy versus chemotherapy for resectable non-small cell lung cancer: a systematic review and network meta-analysis. *Syst Rev*, 2025, 14, 24.
4 **Spicer, J. – Wang, C. – Tanaka, F., et al.**: Surgical outcomes from the phase 3 CheckMate 816 trial: nivolumab (NIVO) + platinum-doublet chemotherapy (chemo) vs chemo alone as neoadjuvant treatment for patients with resectable non-small cell lung cancer (NSCLC). *J Clin Oncol*, 2021, 39, suppl. 15, abstrakt 8503.
5 **Wakelee, H. A. – Altorki, N. K. – Zhou, C., et al.**: IMpower010: Primary results of a phase III global study of atezolizumab versus best supportive care after adjuvant chemotherapy in resected stage IB-IIIA non-small cell lung cancer (NSCLC). *J Clin Oncol*, 2021, 39, suppl. 15, abstrakt 8500.
6 **Paz-Ares, L. – O'Brien, M. E. R. – Mauer, M., et al.**: VP3-2022: Pembrolizumab (pembro) versus placebo for early-stage non-small cell lung cancer (NSCLC) following complete resection and adjuvant chemotherapy (chemo) when indicated: Randomized, triple-blind, phase III EORTC-1416-LCG/ETOP 8-15 – PEARLS/KEYNOTE-091 study. *Ann Oncol*, 2022, 33, s. 451–453.
7 **Ben, M. – Paz-Ares, L. – Marreaud, S., et al.**: Pembrolizumab versus placebo as adjuvant therapy for completely resected stage IB-IIIA non-small-cell lung cancer (PEARLS/KEYNOTE-091): an interim analysis of a randomised, triple-blind, phase 3 trial. *Lancet Oncol*, 2022, 23, s. 1274–1286.
8 **Wakelee, H. – Liberman, M. – Kato, T., et al.**: Perioperative pembrolizumab for early-stage non–small-cell lung cancer. *N Engl J Med*, 2023, 389, s. 491–503.
9 **Spicer, J. D. – Gao, S. – Liberman, M., et al.**: LBA56 Overall survival in the KEYNOTE-671 study of perioperative pembrolizumab for early-stage non-small-cell lung cancer (NSCLC). *Ann Oncol*, 2023, 34, s. S1297–S1298.
10 **Cascone, T. – Awad, M. M. – Spice, J. D., et al.**: LBA1 CheckMate 77T: Phase III study comparing neoadjuvant nivolumab (NIVO) plus chemotherapy (chemo) vs neoadjuvant placebo plus chemo followed by surgery and adjuvant NIVO or placebo for previously untreated, resectable stage II–IIIb NSCLC. *Ann Oncol*, 2023, 34, suppl. 2, S1295.
11 **Herbst, R. S. – Tsuboi, M. – John, T., et al.**: Osimertinib as adjuvant therapy in patients (pts) with stage IB-IIIA EGFR mutation positive (EGFRm) NSCLC after complete tumor resection: ADAURA. Presented at: ASCO20 Virtual Scientific Program. *J Clin Oncol*, 2020, 38, suppl., abstrakt LBA5.
12 **Herbst, R. S. – Wu, Y. L. – John, T., et al.**: Adjuvant osimertinib for resected EGFR-mutated stage IB-IIIA non-small-cell lung cancer: updated results from the phase III randomized ADAURA trial. *J Clin Oncol*, 2023, 41, s. 1830–1840.
13 **Solomon, B. J., et al.**: ALINA: efficacy and safety of adjuvant alectinib versus chemotherapy in patients with early-stage ALK+ non-small cell lung cancer (NSCLC). ESMO Congress 2023, LBA2.
14 **Wu, Y.-L. – Dziadziuszko, R. – Ahn, J. S., et al.**: Alectinib in resected ALK-positive non–small-cell lung cancer. *N Engl J Med*, 2024, 390, s. 1265–1276.
15 **Felip et al.**: IMpower010: Overall survival interim analysis of a phase III study of atezolizumab vs best supportive care in resected NSCLC. Prezentováno na WCLC 2022.
16 **Majem, M., et al.**: Prezentováno na ESMO IO 2024, abstrakt LBA3.

Léčba metastatického nemalobuněčného karcinomu plic s prokázanými genetickými aberacemi

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1 **Kiss, I., et al.**: *Modrá kniha ČOS*. MOÚ Brno, 31. aktualizace, s. 1–384. Dostupné z: https://www.linkos.cz/files/modra-kniha/25.pdf, vyhledáno 5. 5. 2025.
2 NCCN: Guidelines Version 3.2025 Non-Small Cell Lung Cancer. Dostupné z: https://www.nccn.org/professionals/physician_gls/pdf/nscl.pdf, vyhledáno 5. 5. 2025.
3 **Soria, J. C. – Ohe, Y. – Vansteenkiste, J., et al.**; FLAURA investigators: Osimertinib in untreated EGFR-mutated advanced non-small-cell lung cancer. *N Engl J Med*, 2018, 378, s. 113–125.
4 **Planchard, D. – Jänne, P. A. – Cheng, Y., et al.**; FLAURA2 investigators: Osimertinib with or without chemotherapy in EGFR-mutated advanced NSCLC. *N Engl J Med*, 2023, 389, s. 1935–1948.
5 **Cho, B. C. – Lu, S. – Felip, E., et al.**; MARIPOSA investigators: Amivantamab plus lazertinib in previously untreated EGFR-mutated advanced NSCLC. *N Engl J Med*, 2024, 391, s. 1486–1498.
6 **Zhou, C. – Tang, K. J. – Cho, B. C., et al.**; PAPILLON investigators: Amivantamab plus chemotherapy in NSCLC with EGFR exon 20 insertions. *N Engl J Med*, 2023, 389, s. 2039–2051.
7 **Solomon, B. J. – Liu, G. – Felip, E., et al.**: Lorlatinib versus crizotinib in patients with advanced ALK-positive non-small cell lung cancer: 5-year outcomes from the phase III CROWN study. *J Clin Oncol*, 2024, 42, s. 3400–3409.
8 **Dziadziuszko, R. – Krebs, M. G. – De Braud, F., et al.**: Updated integrated analysis of the efficacy and safety of entrectinib in locally advanced or metastatic ROS1 fusion-positive non-small-cell lung cancer. *J Clin Oncol*, 2021, 39, s. 1253–1263.
9 **Demetri, G. D. – De Braud, F. – Drilon, A., et al.**: Updated integrated analysis of the efficacy and safety of entrectinib in patients with NTRK fusion-positive solid tumors. *Clin Cancer Res*, 2022, 28, s. 1302–1312. Erratum in: *Clin Cancer Res*, 2022, 28, s. 2196.
10 **Zhou, C. – Solomon, B. – Loong, H. H., et al.**; LIBRETTO-431 trial investigators: First-line selpercatinib or chemotherapy and pembrolizumab in RET fusion-positive NSCLC. *N Engl J Med*, 2023, 389, s. 1839–1850.
11 **Planchard, D. – Besse, B. – Groen, H. J. M., et al.**: Phase 2 study of dabrafenib plus trametinib in patients with BRAF V600E-mutant metastatic NSCLC: updated 5-year survival rates and genomic analysis. *J Thorac Oncol*, 2022, 17, s. 103–115.
12 Přehledy léčiv SÚKL. Dostupné z: https://prehledy.sukl.cz/prehled_leciv.html#/, vyhledáno 5. 5. 2025.
13 **Goto, K. – Goto, Y. – Kubo, T., et al.**: Trastuzumab deruxtecan in patients with HER2-mutant metastatic non-small-cell lung cancer: primary results from the randomized, phase II DESTINY-Lung02 trial. *J Clin Oncol*, 2023, 41, s. 4852–4863. Erratum in: *J Clin Oncol*, 2024, 42, s. 485.
14 SPC přípravku. Dostupné z: https://www.ema.europa.eu/cs/documents/product-information/enhertu-epar-product-information_cs.pdf, vyhledáno 5. 5. 2025.
15 **Paik, P. K. – Felip, E. – Veillon, R., et al.**: Tepotinib in non-small-cell lung cancer with MET exon 14 skipping mutations. *N Engl J Med*, 2020, 383, s. 931–943.
16 SPC přípravku. Dostupné z: www.ema.europa.eu/cs/documents/product-information/tepmetko-epar-product-information_cs.pdf, vyhledáno 5. 5. 2025.

Léčba metastatického nemalobuněčného karcinomu plic bez řídicích mutací

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1 **Dušek, L. – Malúšková, D. – Mužík, J., et al.**: Epidemiologie zhoubných nádorů plic, průdušnice a průdušek v České republice. *Onkologická Revue*, 2016, 8, Speciál (Současné trendy v léčbě karcinomu plic), s. 7–11.

2 **Howlader, N. – Forjaz, G. – Mooradian, M. J., et al.**: The effect of advances in lung-cancer treatment on population mortality. *N Engl J Med*, 2020, 383, s. 640–649.

3 **Wang, M. – Herbst, R. S. – Boshoff, C.**: Toward personalized treatment approaches for non-small-cell lung cancer. *Nat Med*, 2021, 27, s. 1345–1356.

4 **Schouten, R. D. – Muller, M. – de Gooijer, C. J., et al.**: Real life experience with nivolumab for the treatment of non-small cell lung carcinoma: data from the expanded access program and routine clinical care in a tertiary cancer centre–The Netherlands Cancer Institute. *Lung Cancer*, 2018, 126, s. 210–216.

5 **Pacheco, J. M. – Gao, D. – Camidge, D. R.**: Extended follow-up on KEYNOTE-024 suggests significant survival benefit for pembrolizumab in patients with PD-L1 ≥50%, but unanswered questions remain. *Ann Transl Med*, 2019, 7, suppl. 3, s. S127.

6 **Reck, M. – Rodriguez-Abreu, D. – Robinson, A. G., et al.**: Updated analysis of KEYNOTE-024: Pembrolizumab versus platinum-based chemotherapy for advanced non-small-cell lung cancer with PD-L1 tumor proportion score of 50% or greater. *J Clin Oncol*, 2019, 37, s. 537–546.

7 **Herbst, R. S. – Giaccone, G. – de Marinis, F., et al.**: Atezolizumab for first-line treatment of PD-L1-selected patients with NSCLC. *N Engl J Med*, 2020, 383, s. 1328–1339.

8 **Ozguroglu, M. – Kilickap, S. – Sezer, A., et al.**: First-line cemiplimab monotherapy and continued cemiplimab beyond progression plus chemotherapy for advanced non-small-cell lung cancer with PD-L1 50% or more (EMPOWER-Lung 1): 35-month follow-up from a mutlicentre, open-label, randomised, phase 3 trial. *Lancet Oncol*, 2023, 24, s. 989–1001.

9 **Gadgeel, S. – Rodriguez-Abreu, D. – Speranza, G., et al.**: Updated analysis from KEYNOTE-189: Pembrolizumab or placebo plus pemetrexed and platinum for previously untreated metastatic nonsquamous non-small-cell lung cancer. *J Clin Oncol*, 2020, 38, s. 1505–1517.

10 **Novello, S. – Kowalski, D. M. – Luft, A., et al.**: Pembrolizumab plus chemotherapy in squamous non-small-cell lung cancer: 5-year update of the phase III KEYNOTE-407 study. *J Clin Oncol*, 2023, 41, s. 1999–2006.

11 **Ramalingam, S. S. – Balli, D. – Ciuleanu, T. E., et al.**: 4O Nivolumab (NIVO) 1 ipilimumab (IPI) versus chemotherapy (chemo) as first-line (1L) treatment for advanced NSCLC (aNSCLC) in CheckMate 227 part 1: Efficacy by KRAS, STK11, and KEAP1 mutation status. *Ann Oncol*, 2021, 32, s. S1375–S1376.

12 **Paz-Ares, L. G. – Ciuleanu, T-E. – Cobo, M., et al.**: First-line nivolumab plus ipilimumab with chemotherapy versus chemotherapy alone for metastatic NSCLC in CheckMate 9LA: 3-year clinical update and outcomes in patients with brain metastases or select somatic mutations. *J Thorac Oncol*, 2023, 18, s. 204–222.

13 **Carbone, D. P. – Ciuleanu, T. E. – Schenker, M., et al.**: Four-year clinical update and treatment switching-adjusted outcomes with first-line nivolumab plus ipilimumab with chemotherapy for metastatic non-small cell lung cancer in the CheckMate 9LA randomized trial. *J Immunother Cancer*, 2024, 12, e008189.

14 **Johnson, M. L. – Cho, B. C. – Luft, A., et al.**: Durvalumab with or without tremelimumab in combination with chemotherapy as first-line therapy for metastatic non-small-cell lung cancer: The phase III POSEIDON study. *J Clin Oncol*, 2023, 41, s. 1213–1227.

15 **Reck, M. – Mok, T. S. K. – Nishio, M., et al.**: Atezolizumab plus bevacizumab and chemotherapy in non-small-cell lung cancer (IMpower150): Key subgroup analyses of patients with EGFR mutations or baseline liver metastases in a randomised, open-label phase 3 trial. *Lancet Respir Med*, 2019, 7, s. 387–401.

16 **Hanna, N. – Shepherd, F. A. – Fossella, F. V., et al.**: Randomized phase III trial of pemetrexed versus docetaxel in patients with non-small-cell lung cancer previously treated with chemotherapy. *J Clin Oncol*, 2004, 22, s. 1589–1597.

17 **Reck, M. – Kaiser, R. – Mellemgaard, A., et al.**: Docetaxel plus nintedanib versus docetaxel plus placebo in patients with previously treated non-small-cell lung cancer (LUME-Lung 1): A phase 3, double-blind, randomised controlled trial. *Lancet Oncol*, 2014, 15, s. 143–155.

18 **Reck, M. – Remon, J. – Hellmann, M. D.**: First-line immunotherapy for non-small-cell lung cancer. *J Clin Oncol*, 2022, 40, s. 586–597. Erratum in: *J Clin Oncol*, 2022, 40, 1265.

19 **Beck, A. – Goetsch, L. – Dumontet, C., et al.**: Strategies and challenges for the next generation of antibody-drug conjugates. *Nat Rev Drug Discov*, 2017, 16, s. 315–337.

20 **Chau, C. H. – Steeg, P. S. – Figg, W. D.**: Antibody-drug conjugates for cancer. *Lancet*, 2019, 394, s. 793-804; **Staudacher, A. H. – Brown, M.P.**: Antibody drug conjugates and bystander killing: Is antigen-dependent internalisation required? *Br J Cancer*, 2017, 117, s. 1736–1742.

21 **Passaro, A. – Janne, P. A. – Peters, S.**: Antibody-drug conjugates in lung cancer: Recent advances and implementing strategies. *J Clin Oncol*, 2023, 41, s. 3747–3761.

22 **Ahn, M.-J. – Lisberg, A. – Paz-Ares, L., et al.**: LBA12 Datopotamab deruxtecan (Dato-DXd) vs. docetaxel in previously treated advanced/metastatic (adv/met) non-small cell lung cancer (NSCLC): Results of the randomized phase III study TROPION-Lung01. *Ann Oncol*, 2023, 34, s. S1305–S1306.

ALK pozitivní nemalobuněčný plicní karcinom s mozkovými metastázami léčený lorlatinibem v první linii

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1 **Cognigni, V. – Pecci, F., et al.**: The landscape of ALK-rearranged non-small cell lung cancer: a comprehensive review of clinicopathologic, genomic characteristics, and therapeutic perspectives. *Cancers*, 2022, 14, 4765.

2 **Shaw, A. T. – Yeap, B. Y. – Mino-Kenudson, M., et al.**: Clinical features and outcome of patients with non-small-cell lung cancer who harbor EML4-ALK. *J Clin Oncol*, 2009, 27, s. 4247–4253.

3 **Johung, K. L. – Yeh, N. – Desai, N. B., et al.**: Extended survival and prognostic factors for patients with ALK-rearranged non-small-cell lung cancer and brain metastasis. *J Clin Oncol*, 2016, 34, s. 123–129.

Komentář ke kazuistice: ALK pozitivní nemalobuněčný plicní karcinom s mozkovými metastázami léčený lorlatinibem v první linii

MUDr. Leona Koubková Pneumologická klinika, 2. LF UK a FN v Motole, Praha

1 **Solomon, B. J. – Liu, G. – Felip, E., et al.**: Lorlatinib versus crizotinib in patients with advanced ALK-positive non–small cell lung cancer: 5-year outcomes from the phase III CROWN study. *J Clin Oncol*, 2024, 42, doi.org/10.1200/JCO.24.00581.

2 SPC Lorviqua, http://www.ema.europa.eu.

Očkování proti pneumokokům u pneumologických pacientů

doc. MUDr. Václava Bártů, Ph.D. Plicní oddělení, Medicon, a. s., Praha

1 **Kolek, V., et al.**: *Doporučené postupy v pneumologii*. Maxdorf Jessenius, Praha, 2019, s. 121–138. Dostupné z: https://eshop.maxdorf.cz/user/documents/upload/data/dl/Doporu%C4%8Den%C3%A9%20postupy-v-pneumologii_3-vyd.pdf, vyhledáno 1. 4. 2025.

2 Vakcinace. Doporučení České vakcinologické společnosti pro pneumokokovou vakcinaci v dospělosti. Dostupné z: https://www.vakcinace.eu/doporuceni-a-stanoviska/doporuceni-ceske-vakcinologicke-spolecnosti-pro-pneumokokovou-vakcinaci-v-dospelosti, vyhledáno 1. 4. 2025.

3 **Chlíbek, R., et al.**: *Očkování dospělých*. Mladá fronta, Praha, 2019, s. 150–161.

4 **Chlíbek, R., et al.**: *Očkování dospělých*. Mladá fronta, Praha, 2019, s. 259–266.

5 **Kozáková, J. – Žemličková, H. – Vohrnová, S. – Křížová, P.**: Invazivní pneumokokové onemocnění v České republice v roce 2024. *Zprávy CEM* (SZÚ, Praha), 2025, 34, s. 116–121.

6 Metodickým postup k vykazování očkování od 1. 5. 2025. Dostupné z: https://www.vzp.cz/poskytovatele/informace-pro-praxi/ockovani/metodicky-postup-k-vykazovaniockovani, vyhledáno 3. 6. 2025.

7 www.sukl.cz

8 **Bonten, M. J. – Huijts, S. M. – Bolkenbass, M., et al.**: Polysaccharide conjugate vaccine against pneumococcal pneumonia in adults. *N Engl J Med*, 2015, 372, s. 1114–1125.

CHOPN a asthma bronchiale v roce 2025

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1 Global Initiative for Chronic Obstructive Lung Disease. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease 2025, www.goldcopd.org.

2 GINA. Global strategy for asthma management and prevention, 2024, www.ginasthma.org.

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1 **Kaur, R. – Chupp, G.**: Phenotypes and endotypes of adult asthma: Moving toward precision medicine. *J Allergy Clin Immunol*, 2019, 144, s. 1–12.
2 **Kyriakopoulos, C. – Gogali, A. – Bartziokas, K., et. al.**: Identification and treatment of T2-low asthma in the era of biologics. *ERJ Open Res*, 2021, 7, 00309–2020.
3 **Price, D. – Fletcher, M. – van der Molen, T.**: Asthma control and management in 8,000 European patients: the REcognise Asthma and LInk to Symptoms and Experience (REALISE) survey. *NPJ Prim Care Respir Med*, 2014, 24, 14009.
4 **Petousi, N. – Talbot, NP. – Pavord, I., et al.**: Measuring lung function in airways diseases: current and emerging techniques. *Thorax*, 2019, 74, s. 797–805.
5 **Bussee, W. W. – Wenzel S. E. – Casale, T. B., et. al.**: Baseline FeNO as a prognostic biomarker for subsequent severe asthma exacerbations in patients with uncontrolled, moderate-to-severe asthma receiving placebo in the LIBERTY ASTHMA QUEST study: a post-hoc analysis. Online. *The Lancet Respiratory Medicine*, 2021, 9, s. 1165–1173.
6 **Couillard, S. – Petousi, N. – Smigiel, K. S., et al.**: Toward a predict and prevent approach in obstructive airway diseases. *J Allergy Clin Immunol Pract*, 2023, 11, s. 704–712.
7 **Li, F. – Wang, X. – Shen, S., at al.**: Risk factors associated with comorbid asthma in patients with chronic rhinosinusitis with nasal polyps: a cross-sectional study. *BMC Pulm Med*, 2022, 22, 338.
8 **White, A. A. – Woessner, K. – Simon, R.**: Aspirin-exacerbated respiratory disease: Update on medical management. *World Journal of Otorhinolaryngology Head and Neck Surgery*, 2020, 6, s. 241–247.
9 Global Initiative for Asthma Management and Prevention. Global Initiative for Asthma (GINA), https://ginasthma.org/.
10 **Cazzola, M. – Page, C. P. – Matera, M. G., et al.**: Revisiting asthma pharmacotherapy: where do we stand and where do we want to go? *Eur Respir J*, 2023, 62, 2300700.

Novinky v biologické léčbě bronchiálního astmatu

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1 GINA. Global strategy for Asthma Management and Prevention (Updated 2023). Dostupné z: https://ginasthma.org/wp-content/uploads/2023/07/GINA-2023-Full-report-23_07_06-WMS.pdf, vyhledáno 9. 5. 2025.
2 **Teřl, M. – Sedlák, V. – Krčmová, I.**: Doporučený postup diagnostiky a léčby těžkého astmatu. Geum, 2023. Dostupné z: https://www.geum.org/doporuceny-postup-diagnostiky-a-lecby-tezkeho-astmatu/, vyhledáno 9. 5. 2025.
3 **Busse, W. – Corren, J. – Lanier, B. Q., et al.**: Omalizumab, anti-IgE recombinant humanized monoclonal antibody, for the treatment of sever allergic asthma. *J Allergy Clin Immunol*, 2001, 108, s. 184–190.
4 XOLAIR (omalizumab) for injection, for subcutaneous use Initial U.S. Approval: 2016. Genetech Inc. South Sab Francisco CA.
5 **Haldar, P. – Brightling, C. E. – Hargadon, B., et al.**: Mepolizumab for severe eosinophilic asthma (DREAM): a multicentre, double-blind placebo-controlled trial. *Lancet*, 2012, 380, s. 651–659.
6 NUCALA (mepolizumab) for injection, for subcutaneous use NUCALA (mepolizumab) injection, for subcutaneous use Initial U.S. Approval: 2015 Glaxo Smith Kline Research. Triangle Park NC 27709.
7 Úhradová kritéria léku Nucala 100 MG INJ. SOL, www.sukl.cz.
8 **Maselli, D. – Velez, M. – Rogers, L.**: Reslizumab in the management of poorly controlled asthma: the data so far. *J Asthma Allergy*, 2016, 9, s. 155–162.
9 CINQUERO. Product information. Dostupné z: https://www.ema.europa.eu/en/medicines/human/EPAR/cinqaero, vyhledáno 9. 5. 2025.
10 Úhradová kritéria léku CINQAERO 10 MG/ML INF CNC SOL 1X10ML, www.sukl.cz.
11 **Nair, P. – Wenzel, S. – Rabe, K. F., et al.**: Oral glucocorticoid–sparing effect of benralizumab in severe asthma. New Eng J Med, 2017, 376, s. 2448–2458.
12 **Bleecker, E. R. – Fitzgerald, J. M. – Chanez, P., et al.**: Efficacy and safety of benralizumab for patients with severe asthma uncontrolled with high-dosage inhaled corticosteroids and long-acting β_2-agonists (SIROCCO): a randomised, multicentre, placebo-controlled phase 3 trial. *Lancet*, 2016, 388, s. 2115–2127.
13 **Fitzgerald, J. M. – Bleecker, E. R. – Parameswaran, N., et al.**: Benralizumab, an anti-interleukin-5 receptor α monoclonal antibody, as add-on treatment for patients with severe, uncontrolled, eosinophilic asthma (CALIMA): a randomised, double-blind, placebo-controlled phase 3 trial. *Lancet*, 2016, 388, s. 2128–2141.
14 **Agache, I. – Song, Y. – Rocha, C., et al.**: Efficacy and safety of treatment with dupilumab for severe asthma: A systematic review of the EAACI guidelines – Recommendations on the use of biologicals in severe asthma. *Allergy*, 2020, 75, s. 1058–1068.
15 DUPIXENT. Úhradová kritéria. 300 MG INJ. SOL, www.sukl.cz.
16 **Abdelgalil, M. S. – Elrashedy, A. A. – Awad, A. K., et al.**: Safety and efficacy of tezepelumab vs. placebo in adult patients with severe uncontrolled asthma: a systematic review and meta-analysis. *Sci Reports*, 2022, 12, 20905.
17 **Gauvreau, G. M. – O'Byrne, P. M. – Boulet, L.-P., et al.**: Effects of an anti-TSLP antibody on allergen-induced asthmatic responses. *N Engl J Med*, 2014, 370, s. 2102–2110.
18 **Ando, K. – Fukuda, Y. – Tanaka, A., et al.**: Comparative efficacy and safety of tezepelumab and other biologics in patients with inadequately controlled asthma according to thresholds of type 2 inflammatory biomarkers : a systematic review and network meta-analysis. *Cells*, 2022, 11, 819.
19 **Corren, J. – Pham, T. H. – Garcia Gil, E., et al.**: Baseline type 2 biomarker levels and response to tezepelumab in severe asthma. *Allergy*, 2022, 77, s. 1786–1796.
20 A Study of GSK3511294 (depemokimab) in participants with severe asthma with an eosinophilic phenotype. Dostupné z: https://clinicaltrials.gov/study/NCT04718103, vyhledáno 9. 5. 2025.
21 **Deiteren, A. – Krupka, E. – Imberdis, K., et al.**: Late Breaking Abstract – Early improvement in asthma small airway dysfunction after one dose of SAR443765, a novel bispecific anti-thymic stromal lymphopoietin/anti-IL-13 nanobody molekule. 2023. Dostupné z: https://s3.eu-central-1.amazonaws.com/m-anage.com.storage.ers/abstracts_2023/104473.pdf, vyhledáno 9. 5. 2025.
22 Dose ranging study of SAR443765 compared with placebo-control in adult participants with moderate to severe asthma (AIRCULES). Dostupné z: https://clinicaltrials.gov/study/NCT06102005, vyhledáno 9. 5. 2025.
23 **Kurki, P. – Barry, S. – Bourges, I.**: Safety, immunogenicity and interchangeability of biosimilar monoclonal antibodies and fusion proteins: a regulatory perspective. *Drugs*, 2021, 81, s. 1881–1896.
24 **Sciurba, F. C. – Criner, G. J., et al.**: Mepolizumab to prevent exacerbations of COPD with an eosinophilic phenotype. *N Engl J Med*, 2025, 392, s. 1710–1720.
25 **Wechsler, M. E. – Parameswaran, N. – Terrier, B., et al.**: Benralizumab versus mepolizumab for eosinophilic granulomatosis with polyangiitis. *N Engl J Med*, 2024, 390, s. 911–921.
26 **Criner, G. J. – Celli, B. R. – Brightling, Ch. E., et al.**: Benralizumab for the prevention of COPD exacerbations. *N Engl J Med*, 2019, 381, s. 1023–1034.
27 **Jackson, D. J. – Wechsler, M. E. – Jackson, D., et al.**: Twice-yearly depemokimab in severe asthma with an eosinophilic phenotype. *N Engl J Med*, 2024, 391, s. 2337–2349.

Tezepelumab v léčbě pacientů s chronickou rinosinusitidou s nosními polypy

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1 **Bachert, C. – Bhattacharyya, N. – Desrosiers, M., et al.**: Burden of disease in chronic rhinosinusitis with nasal polyps. *J Asthma Allergy*, 2021, 14, s. 127–134.
2 **Fokkens, W. J. – Lund, V. J. – Hopkins, C., et al.**: European Position Paper on Rhinosinusitis and Nasal Polyps 2020. *Rhinology*, 2020, 58, suppl. S29, s. 1–464.
3 **Bachert, C. – Zhang, N. – Cavaliere, C., et al.**: Biologics for chronic rhinosinusitis with nasal polyps. *J Allergy Clin Immunol*, 2020, 145, s. 725–739.
4 **Balatková, Z. – Knížek, Z. – Vodička, J., et al.**: Biologická léčba chronické rinosinusitidy. *Otorinolaryngol Foniatr*, 2021, 70, s. 109–114.
5 **Alska, E. – Łaszczych, D. – Napiórkowska-Baran, K., et al.**: Advances in biologic therapies for allergic diseases: current trends, emerging agents, and future perspectives. *J Clin Med*, 2025, 14, 1079.
6 **Kimura, S. – Pawankar, R. – Mori, S., et al.**: Increased expression and role of thymic stromal lymphopoietin in nasal polyposis. *Allergy Asthma Immunol Res*, 2011, 3, s. 186–193.
7 **Nagarkar, D. R. – Poposki, J. A. – Tan, B. K., et al.**: Thymic stromal lymphopoietin activity is increased in nasal polyps of patients with chronic rhinosinusitis. *J Allergy Clin Immunol*, 2013, 132, s. 593–600.
8 **Gauvreau, G. M. – Sehmi, R. – Ambrose, C. S., et al.**: Thymic stromal lymphopoietin: its role and potential as a therapeutic target in asthma. *Expert Opin Ther Targets*, 2020, 24, s. 777–792.
9 **Favier, V. – Charriot, J. – Crampette, L., et al.**: What place will tezepelumab hold in the treatment paradigm in chronic rhinosinusitis? *Expert Rev Clin Immunol*, 2023, 19, s. 821–825.
10 **Plaza, V. – Cañete, C. – Domingo, C., et al.**: Efficacy and potential positioning of tezepelumab in the treatment of severe asthma. *Open Respir Arch*, 2023, 5, 100231.
11 **Corren, J. – Parnes, J. R. – Wang, L., et al.**: Tezepelumab in adults with uncontrolled asthma. *N Engl J Med*, 2017, 377, s. 936–946.
12 **Menzies-Gow, A. – Corren, J. – Bourdin, A., et al.**: Tezepelumab in adults and adolescents with severe, uncontrolled asthma. *N Engl J Med*, 2021, 384, s. 1800–1809.
13 **Lipworth, B. J. – Han, J. K. – Desrosiers, M., et al.**: Tezepelumab in adults with severe chronic rhinosinusitis with nasal polyps. *N Engl J Med*, 2025, 392, s. 1178–1188.
14 **Knížek, Z.**: Efekt dupilumabu u pacientů s chronickou rinosinusitidou s polypy s komorbidní alergickou rinitidou. *Alergie*, 2023, 25, s. 187–191.
15 **Knížek, Z.**: Referování pacientů do center biologické léčby chronické rinosinusitidy s nosními polypy – využití telemedicíny. Dostupné z: https://pneumologie.kazuistiky.cz/clanky/85-referovani-pacientu-do-center-biologicke-lecby-chronicke-rinosinusitidy-s-nosnimi-polypy-vyuziti-telemediciny, vyhledáno 28. 5. 2025.
16 **Fokkens, W. J. – Corso, E. D. – Backer, V., et al.**: EPOS2020/EUFOREA expert opinion on defining disease states and therapeutic goals in CRSwNP. *Rhinology*, 2024, 62, s. 287–298.
17 **Stevens, W. W. – Peters, A. T. – Tan, B. K., et al.**: Associations between inflammatory endotypes and clinical presentations in chronic rhinosinusitis. *J Allergy Clin Immunol Pract*, 2019, 7, s. 2812–2820.
18 **Tănase, M. I. – Tanase, M. – Cosgarea, M., et al.**: Biologic treatments for chronic rhinosinusitis with nasal polyps (CRSwNP): A comparative review of efficiency and risks. *Cureus*, 2025, 17, e77804.
19 **Habenbacher, M. – Moser, U. – Hadl, O., et al.**: Monoclonal antibody switching in biologic treatment of chronic rhinosinusitis with nasal polyps. *J Clin Med*, 2024, 13, 6883.
20 **Bachert, C. – Han, J. K. – Desrosiers, M., et al.**: Efficacy and safety of dupilumab in patients with severe chronic rhinosinusitis with nasal polyps (LIBERTY NP SINUS-24 and LIBERTY NP SINUS-52): results from two multicentre, randomised, double-blind, placebo-controlled, parallel-group phase 3 trials. *Lancet*, 2019, 394, s. 1638–1650.
21 **Han, J. K. – Bachert, C. – Fokkens, W., et al.**: Mepolizumab for chronic rhinosinusitis with nasal polyps (SYNAPSE): a randomised, double-blind, placebo-controlled, phase 3 trial. *Lancet Respir Med*, 2021, 9, s. 1141–1153.
22 **Gevaert, P. – Omachi, T. A. – Corren, J., et al.**: Efficacy and safety of omalizumab in nasal polyposis: 2 randomized phase 3 trials. *J Allergy Clin Immunol*, 2020, 146, s. 595–605.

Léčba syndromu obstrukční spánkové apnoe – up-to-date v roce 2025

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1 **Dostálová, S. – Susta, M. – Nepozitek, J., et al.**: Polysomnographic findings in individuals over 50 years of age lacking subjective signs of sleep disturbance. *Ceska a Slovenska Neurologie a Neurochirurgie*, 2020, 83, s. 57–63.

2 **Pépin, J. L. – Bailly. S. – Rinder, P., et al.**: Relationship between CPAP termination and all-cause mortality: a French nationwide database analysis. *Chest*, 2022, 161, s. 1657–1665.

3 **Maniaci, A. – Iannella, G. – Cocuzza, S., et al.**: Oxidative stress and inflammation biomarker expression in obstructive sleep apnea patients. *J Clin Med*, 2021, 10, s. 277.

4 **Patel, S. R.**: Shared genetic risk factors for obstructive sleep apnea and obesity. *Journal of Applied Physiology*, 2005, 99, s. 1600–1606.

5 **Bonsignore, M. R. – McNicholas, W. T. – Montserrat, J. M., et al.**: Adipose tissue in obesity and obstructive sleep apnoea. *Eur Respir J*, 2012, 39, s. 746–767.

6 **Klozar, J. – Plzak, J. – Ondrova, M., et al.**: *Doporučený postup u dospělých pacientů s poruchami dýchýní ve spánku*. Česká společnost pro výzkum spánku a spánkovou medicínu, 2016.

7 **Malhotra, A. – Mesarwi, O. – Pepin, J. L., et al.**: Endotypes and phenotypes in obstructive sleep apnea. *Curr Opin Pulm Med*, 2020, 26, s. 609–614.

8 **Kakazu, M. T. – Soghier, I. – Afshar, M., et al.**: Weight loss interventions as treatment of obesity hypoventilation syndrome. A systematic review. *Ann Am Thoracic Society*, 2020, 17, s. 492–502.

9 **Pretl, M. – Hobzova, M. – Honnerova, M., et al.**: Indikační kritéria pro léčbu poruch dýchání ve spánku pomocí přetlaku u dospělých. Dostupné z: https://www.sleep-society.cz/odborne-informace/doporucene-postupy, vyhledáno 5. 2. 2025.

10 **Zhao, X. – Li, S. – Wang, X., et al.**: Clinical outcomes of obstructive sleep apnea in patients with acute coronary syndrome in relation to hyperuricemia status. *J Sleep Research*, 2023, e13898.

11 **Koka, V. – De Vito, A. – Roisman, G., et al.**: Orofacial myofunctional therapy in obstructive sleep apnea syndrome: a pathophysiological perspective. *Medicina*, 2021, 57, s. 323.

12 **Costanzo, M. R. – Javaheri, S. – Ponikowski, P., et al.**: Transvenous phrenic nerve stimulation for treatment of central sleep apnea: five-year safety and efficacy outcomes. *Nat Sci Sleep*, 2021, 13, s. 515–526.

13 **Lin, H. C. – Chiang, L. L. – Ong, J. H., et al.**: The effects of threshold inspiratory muscle training in patients with obstructive sleep apnea: a randomized experimental study. *Sleep and Breathing*, 2020, 24, s. 201–209.

14 **Marra, S. – Arnaldi, D. – Nobili, L.**: The pharmacotherapeutic management of obstructive sleep apnea. *Expert Opinion on Pharmacotherapy*, 2019, 20, s. 1981–1991.

15 **Farré, R. – Montserrat, J. M.**: Principles of CPAP and auto-adjusting CPAP devices. *Breathe*, 2008, 5, s. 42–50.

16 **White, D. P. – Messineo, L. – Thompson, E., et al.**: Kairos positive airway pressure (KPAP) equals continuous PAP in effectiveness, and offers superior comfort for obstructive sleep apnea treatment. *Sleep Med*, 2024, 124, s. 268–275.

17 **Selim, B. J. – Junna, M. R. – Morgenthaler, T. I.**: Therapy for sleep hypoventilation and central apnea syndromes. *Curr Treat Opt Neurol*, 2012, 14, s. 427–437.

18 **Cowie, M. R. – Woehrle, H. – Wegscheider, K., et al.**: Adaptive servo-ventilation for central sleep apnea in systolic heart failure. *N Engl J Med*, 2015, s. 1095–1105.

19 **Berry, R. B. – Block, A. J.**: Positive nasal airway pressure eliminates snoring as well as obstructive sleep apnea. *Chest*, 1984, 85, s. 15–20.

20 **Vanek, J. – Prasko, J. – Genzor, S., et al.**: Obstructive sleep apnea, depression and cognitive impairment. *Sleep Medicine*, 2020, 72, s. 50–58.

21 **Shah, F. A. – Moronta, S. – Braford, M., et al.**: Obstructive sleep apnea and pulmonary hypertension: a review of literature. *Cureus*, 2021, 13.

22 **Cattazzo, F. – Pengo, M. F. – Giontella, A., et al.**: Effect of continuous positive airway pressure on glucose and lipid profiles in patients with obstructive sleep apnoea: A systematic review and meta-analysis of randomized controlled trials. *Archivos de Bronconeumología*, 2023, 59, s. 370–376.

23 **Yang, H. – Xiang, P. – Zhang, E., et al.**: Is hypercapnia associated with poor prognosis in chronic obstructive pulmonary disease? A long-term follow-up cohort study. *BMJ open*, 2015, 5, e008909.

24 **Browaldh, N. – Markström, A. – Friberg, D.**: Elective tracheostomy is an alternative treatment in patients with severe obstructive sleep apnoea syndrome and CPAP failure. *Acta Otolaryngol*, 2009, 129, s. 1121–1126.

25 **Holty, J. E. – Guilleminault, C.**: Maxillomandibular advancement for the treatment of obstructive sleep apnea: a systematic review and meta-analysis. *Sleep Med Reviews*, 2010, 14, s. 287–297.

26 **Lysdahl, M. – Haraldsson, P. O.**: Long-term survival after uvulopalatopharyngoplasty in nonobese heavy snorers: a 5- to 9-year follow-up of 400 consecutive patients. *Arch Otolaryngol Head Neck Surg*, 2000, 126, s. 1136–1140.

27 **Hedner, J. – Stenlöf, K. – Zou, D., et al.**: A randomized controlled clinical trial exploring safety and tolerability of sulthiame in sleep apnea. *Am J Respir Critical Care Medicine*, 2022, 205, s. 1461–1469.

28 **Gasa, M. – Tamisier, R. – Launois, S. H., et al.**: Residual sleepiness in sleep apnea patients treated by continuous positive airway pressure. *J Sleep Research*, 2013, 22, s. 389–397.

29 **Torres-Castro, R. – Solis-Navarro, L. – Puppo, H., et al.**: Respiratory muscle training in patients with obstructive sleep apnoea: a systematic review and meta-analysis. *Clocks Sleep*, 2022, 4, s. 219–229.

30 **Neumannova, K. – Hobzova, M. – Sova, M., et al.**: Pulmonary rehabilitation and oropharyngeal exercises as an adjunct therapy in obstructive sleep apnea: a randomized controlled trial. *Sleep Med*, 2018, 52, s. 92–97.

31 **Marco Pitarch, R. – Selva García, M. – Puertas Cuesta, J., et al.**: Effectiveness of a mandibular advancement device in obstructive sleep apnea patients: a prospective clinical trial. *Eur Arch Otorhinolaryngol*, 2018, 275, s. 1903–1911.

32 **Steffen, A. – Schöbel, C. – Vogler, J., et al.**: Concurrent hypoglossal and phrenic nerve stimulation in patients with obstructive and treatment emergent central sleep apnea. *Sleep and Breathing*, 2024, 28, s. 905–908.

Současné a budoucí farmakologické metody léčby idiopatické plicní fibrózy

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1 **Lee, J. H. – Park, H. J. – Kim, S., et al.**: Epidemiology and comorbidities in idiopathic pulmonary fibrosis: a nationwide cohort study. *BMC Pulm Med*, 2023, 23, s. 54.

2 **Walters, T. M. – Leong, M. C. H. – Montesi, S. B., et al.**: Comorbidities in the idiopathic pulmonary fibrosis and progressive pulmonary fibrosis trial population: a systematic review and meta-analysis. *Eur Respir Rev*, 2025, 34, 240238.

3 **Rodríguez-Nieto, M. J. – Cano-Jiménez, E. – Romero Ortiz, A. D., et al.**: Economic burden of idiopathic pulmonary fibrosis in Spain: a prospective real-world data study (OASIS Study). *Pharmacoeconomics*, 2023, 41, s. 999–1010.

4 **Cox, I. A. – de Graaff, B. – Ahmed, H., et al.**: The economic burden of idiopathic pulmonary fibrosis in Australia: a cost of illness study. *Eur J Health Econ*, 2023, 24, s. 1121–1139.

5 **Moor, C. C. – Tak van Jaarsveld, N. C. – Owusuaa, C., et al.**: The value of the surprise question to predict one-year mortality in idiopathic pulmonary fibrosis: a prospective cohort study. *Respiration*, 2021, 100, s. 780–785.

6 **Behr, J. – Kreuter, M. – Hoeper, M. M., et al.**: Management of patients with idiopathic pulmonary fibrosis in clinical practice: the INSIGHTS-IPF registry. *Eur Respir J*, 2015, 46, s. 186–196.

7 **Richeldi, L.**: Assessing the treatment effect from multiple trials in idiopathic pulmonary fibrosis. *Eur Respir Rev*, 2012, 21, s. 147–151.

8 **Gao, R. – Xu, X. – Wang, S., et al.**: The efficacy of gabapentin for the treatment of refractory cough associated with interstitial lung disease: study protocol for a randomized, double-blind and placebo-controlled clinical trial. *Trials*, 2022, 23, s. 165.

9 **Maher, T. M. – Avram, C. – Bortey, E., et al.**: Nalbuphine tablets for cough in patients with idiopathic pulmonary fibrosis. *NEJM Evid*, 2023, 2, doi: 10.1056/EVIDoa2300083.

10 **Wu, Z. – Spencer, L. G. – Banya, W., et al.**: Morphine for treatment of cough in idiopathic pulmonary fibrosis (PACIFY COUGH): a prospective, multicentre, randomised, double-blind, placebo-controlled, two-way crossover trial. *Lancet Respir Med*, 2024, 12, s. 273–280.

11 **Martinez, F. J. – Wijsenbeek, M. S., Raghu, G., et al.**: Phase 2B study of inhaled RVT-1601 for chronic cough in idiopathic pulmonary fibrosis: a multicenter, randomized, placebo-controlled study (SCENIC Trial). *Am J Respir Crit Care Med*, 2022, 205, s. 1084–1092.

12 **Martinez, F. J. – Afzal, A. S. – Smith, J. A., et al.**: Chronic cough in IPF study group. Treatment of persistent cough in subjects with idiopathic pulmonary fibrosis (IPF) with gefapixant, a P2X3 antagonist, in a randomized, placebo-controlled clinical trial. *Pulm Ther*, 2021, 7, s. 471–486.

13 **Guler, S. A. – Clarenbach, C. – Brutsche, M., et al.**: Azithromycin for the treatment of chronic cough in idiopathic pulmonary fibrosis: a randomized controlled crossover trial. *Ann Am Thorac Soc*, 2021, 18, s. 2018–2026.

14 **Glassberg, M. K. – Wijsenbeek, M. S. – Gilberg, F., et al.**: Effect of pirfenidone on breathlessness in patients with idiopathic pulmonary fibrosis. *Eur Respir J*, 2019, 54, 1900399.

15 **Hozumi, H. – Miyashita, K. – Nakatani, E., et al.**: Antifibrotics and mortality in idiopathic pulmonary fibrosis: external validity and avoidance of immortal time bias. *Respir Res*, 2024, 25, s. 293.

16 **Xu, H. – Hui, S. L. – Lee, J. S., et al.**: Effect of antifibrotic use on mortality in patients with idiopathic pulmonary fibrosis. *Ann Am Thorac Soc*, 2024, 21, s. 1407–1415.

17 **Takehara, K. – Koga, Y. – Hachisu, Y., et al.**: Differential discontinuation profiles between pirfenidone and nintedanib in patients with idiopathic pulmonary fibrosis. *Cells*, 2022, 11, s. 143.

18 **Zhao, R. – Xie, B. – Wang, X., et al.**: The tolerability and efficacy of antifibrotic therapy in patients with idiopathic pulmonary fibrosis: Results from a real-world study. *Pulm Pharmacol Ther*, 2024, 84, 102287.

19 **Inoue, Y. – Ogura, T. – Azuma, A., et al.**: Real-world safety, tolerability and effectiveness of nintedanib in patients with idiopathic pulmonary fibrosis: final report of post-marketing surveillance in Japan. *Advances in Therapy*, 2024, 42, doi: 10.1007/s12325-024-03079-2.

20 **Maher, T. M. – Ford, P. – Brown, K. K., et al.**; ISABELA 1 and 2 Investigators: Ziritaxestat, a novel autotaxin inhibitor, and lung function in idiopathic pulmonary fibrosis: The ISABELA 1 and 2 randomized clinical trials. *JAMA*, 2023, 329, s. 1567–1578.

21 **Khalil, N. – Manganas, H. – Ryerson, C. J., et al.**: Phase 2 clinical trial of PBI-4050 in patients with idiopathic pulmonary fibrosis. *Eur Respir J*, 2019, 53, 1800663.

22 **Schambye, H. – Freve, J.**: Galecto announces topline results from phase 2b GALACTIC-1 trial of GB0139 for the treatment of idiopathic pulmonary fibrosis. Galecto, Inc. Dostupné z: https://ir.galecto.com/node/8331/pdf, vyhledáno 15. 4. 2025.

23 **Emre, S. – Fazlıoğlu, N. – Emre, E., et al.**: Galectin-3 level in idiopathic pulmonary fibrosis patients and its relationship with response to antifibrotic treatment. *Respir Med*, 2025, 240, 108028.

24 **Koga, Y. – Motegi, M. – Ono, A., et al.**: Serum galectin-3 as a biomarker of progression of idiopathic pulmonary fibrosis treated with nintedanib. *Respir Investig*, 2025, 63, s. 394–398.

25 **Richeldi, L. – Schiffman, C. – Behr, J., et al.**: Zinpentraxin alfa for idiopathic pulmonary fibrosis: the randomized phase III STARSCAPE trial. *Am J Respir Crit Care Med*, 2024, 209, s. 1132–1140.

26 **Raghu, G. – Richeldi, L. – Fernández Pérez, E. R., et al.**; ZEPHYRUS-1 Study Investigators: Pamrevlumab for idiopathic pulmonary fibrosis: the ZEPHYRUS-1 randomized clinical trial. *JAMA*, 2024, 332, s. 380–389.

27 **Behr, J. – Kolb, M. – Song, J. W., et al.**: Nintedanib and sildenafil in patients with idiopathic pulmonary fibrosis and right heart dysfunction. A prespecified subgroup analysis of a double-blind randomized clinical trial (INSTAGE). *Am J Respir Crit Care Med*, 2019, 200, s. 1505–1512.

28 **King, T. E. Jr. – Brown, K. K. – Raghu, G., et al.**: BUILD-3: a randomized, controlled trial of bosentan in idiopathic pulmonary fibrosis. *Am J Respir Crit Care Med*, 2011, 184, s. 92–99.

29 **Raghu, G. – Behr, J. – Brown, K. K., et al.**; ARTEMIS-IPF Investigators: Treatment of idiopathic pulmonary fibrosis with ambrisentan: a parallel, randomized trial. *Ann Intern Med*, 2013, 158, s. 641–649.

30 **Raghu, G. – Anstrom, K. J. – King, T. E. Jr., et al.**: Prednisone, azathioprine, and N-acetylcysteine for pulmonary fibrosis. *N Engl J Med*, 2012, 366, s. 1968–1977.

31 **Pascoe, A. – Chen, X. E. – Smallwood, N., et al.**: Lack of diversity in antifibrotic trials for pulmonary fibrosis: a systematic review. *Eur Respir Rev*, 2025, 34, 240201.

32 **Li, A. – Teoh, A. – Troy, L., et al.**: Implications of the 2022 lung function update and GLI global reference equations among patients with interstitial lung disease. *Thorax*, 2024, 79, s. 1024–1032.

33 **West, A. – Chaudhuri, N. – Barczyk, A., et al.**: Inhaled pirfenidone solution (AP01) for IPF: a randomised, open-label, dose-response trial. *Thorax*, 2023, 78, s. 882–889.

34 Pipeline. Avalyn Pharma, Inc., Cambridge. Dostupné z: https://www.avalynpharma.com/pipeline/, vyhledáno 15. 4. 2025.

35 **Nathan, S. D. – Behr, J. – Cottin, V., et al.**: Study design and rationale for the TETON phase 3, randomised, controlled clinical trials of inhaled treprostinil in the treatment of idiopathic pulmonary fibrosis. *BMJ Open Respir Res*, 2022, 9, e001310.

Sekundární imunodeficience

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1 **IJspeert, H. – Edwards, E. S. J. – O'Hehir, R. E., et al.**: Update on inborn errors of immunity. *J Allergy Clin Immunol*, 2025, 155, s. 740–751.
2 **Bartůňková, J. – Šedivá, A., et al.**: *Imunodeficience*. Grada, Praha, 2021.
3 **Bonilla, F. A. – Geha, R. S.**: Secondary immunodeficiencies: Diagnosis and management. *JACI*, 2003, 112, s. S16–S22.
4 **Tuano, K. S. – Seth, N. – Chinen, J.**: Secondary immunodeficiencies: a overview. *Ann Allergy Asthma Immunol*, 2021, 127, s. 617–626.
5 **Otani, I. M. – Lehman, H. K. – Jongco, A. M., et al.**: Practical guidance for the diagnosis and management of secondary hypogammaglobulinemia: A Work Group Report of the AAAAI Primary Immunodeficiency and Altered Immune Response Committees. *J Allergy Clin Immunol*, 2022, 149, s. 1525–1560.
6 **Neelapu, S. S. – Tummala, S. – Kebriaei, P., et al.**: Chimeric antigen receptor T-cell therapy – assessment and management of toxicities. *Nat Rev Clin Oncol*, 2018, 15, s. 47–62.
7 **Hill, J. A. – Li, D. – Hay, K. A., et al.**: Infectious complications of CD19-targeted chimeric antigen receptor – modified T-cell immunotherapy. *Blood*, 2018, 131, s. 1215–1224.
8 **Makatsori, M. – Kiani-Alikhan, S. – Manson, A. L., et al.**: Hypogammaglobulinaemia after rituximab treatment – incidence and outcomes. *QJM*, 2014, 107, s. 821–828.
9 **Orange, J. S. – Hossny, E. M. – Weiler, C. R., et al.**: Use of intravenous immunoglobulin in human disease: a review of evidence by members of the Primary Immunodeficiency Committee of the American Academy of Allergy, Asthma and Immunology. *J Allergy Clin Immunol*, 2006, 117, s. S525–S553.
10 **Jolles, S. – Chapel, H. – Litzman, J.**: When to initiate immunoglobulin replacement therapy (IGRT) in antibody deficiency: a practical approach. *Clin Exp Immunol*, 2017, 188, s. 333–341.
11 **Katona, P. – Katona-Apte, J.**: The interaction between nutrition and infection. *Clin Infect Dis*, 2008, 46, s. 1582–1588.
12 **Otani, I. M. – Lehman, H. K. – Jongco, A. M., et al.**: Practical guidance for the diagnosis and management of secondary hypogammaglobulinemia: A Work Group Report of the AAAAI Primary Immunodeficiency and Altered Immune Response Committees. *J Allergy Clin Immunol*, 2022, 149, s. 1525–1560.
13 UpToDate: Trusted evidence-based solutions for modern healthcare. The UpToDate® suite offers clinical, drug, patient and member content to support all health professionals; www.uptodate.com.
14 Guidance: Clinical Guidelines for Immunoglobulin Use (Second Edition Update). Department of Health, UK [14]. Dostupné z: https://www.gov.uk/government/publications/clinical-guidelines-for-immunoglobulin-use-second-edition-update, vyhledáno 9. 4. 2025.
15 **Huq, M. E. – Bhatnagar, N. K. – Hostoffer, R. W.**: Hypogammaglobulinemia – sekce Differential Diagnosis. Dostupné z: https://www.ncbi.nlm.nih.gov/books/NBK563134/, vyhledáno 9. 4. 2025.

Aktuální strategie prevence vzniku závažných forem infekce RSV u dětí

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1 **Tabatabai, J. – Ihling, C. M. – Rehbein, R. M., et al.**: Molecular epidemiology of respiratory syncytial virus in hospitalised children in Heidelberg, Southern Germany, 2014–2017. *Infect Genet Evol*, 2022, 98, 105209
2 **Straňák, Z. – Saliba, E. – Kosma, P., et al.**: Predictors of RSV LRTI hospitalization in infants born at 33 to 35 weeks gestational age: a large multinational study (PONI). *PLoS One*, 2016, 11, e0157446.
3 **Pazdiora, P. – Sanca, O. – Dušek, L.**: Infekce respiračními syncytiálními viry (RSV) v České republice – analýza hospitalizací a úmrtí v letech 2017–2022. *Epidemiol Mikrobiol Imunol*, 2024, 73, s. 21–29.
4 **Prymula, R. – Pazdiora, P. – Dušek, L.**: Infekce RSV v ČR – analýza hospitalizací v letech 2017–2021. *Vakcinologie*, 2023, 17, s. 6–14.
5 **Arriola, C. S. – Kim, L. – Langley, G., et al.**: Estimated burden of community – onset respiratory syncytial virus-associated hospitalizations among children aged < 2 years in the United States, 2014–2015. *J Pediatric Infect Dis Soc*, 2020, 9, s. 587–595.
6 **Simões, E. A. F. – Pahud, B. A. – Madhi, S. A., et al.**; MATISSE (Maternal Immunization Study for Safety and Efficacy) Clinical Trial Gr MATISSE (Maternal Immunization Study for Safety and Efficacy) Clinical Trial Group: Efficacy, safety, and immunogenicity of the MATISSE (Maternal Immunization Study for Safety and Efficacy) maternal respiratory syncytial virus prefusion F protein vaccine trial. *Obstet Gynecol*, 2025, 145, s. 157–167.
7 **Wegzym, C., et al.**: Safety and effectiveness of palivizumab in children at high risk of serious disease due fo respiratory syncytial virus infection: a systematic review. *Infect Dis Ther*, 2014, 3, s. 133–158.
8 Palivizumab. Doporučení ČNeoS ČLS JEP společnosti dětské pneumologie pro imunoprofylaxi závažných forem RSV infekce. Dostupné z: https://cneos.cz/palivizumab/, vyhledáno 10. 5. 2025.
9 **Griffin, M. P. – Yuan, Y. – Takas, T.**; Nirsevimab Study Group: Single-dose nirsevimab for prevention of RSV in preterm infants. *N Engl J Med*, 2020, 383, s. 415–425.
10 **Drysdale, S. B. – Cathie, K. – Flamein, F., et al.**; HARMONIE Study Group: Nirsevimab for prevention of hospitalizations due to RSV in infants. *N Engl J Med*, 2023, 389, s. 2425–2435.
11 Doporučení a stanoviska České vakcinologické společnosti týkající se očkování proti infekčním onemocněním. Dostupné z: https://www.vakcinace.eu/doporuceni-a-stanoviska, vyhledáno 10. 5. 2025.

Imunomodulační možnosti prevence recidivujících infekcí

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1 **Jeseňák, M. – Rennerová, Z. – Bánovčin, P., et al.**: Recidivujúce infekcie dýchacích ciest a imunomodulácia u detí. Mladá fronta, Praha, 2012.
2 **Bystroň, J.**: *Často nemocné dítě*. Galén, Praha, 2023.
3 Hrubiško, M., et al.: Štandardný diagnostický a terapeutický postup „Sekundárne imunodeficiencie". Dátum účinnosti schválenia MZ SR: 1. 5. 2020. Dostupné z: https://www.tevapoint.sk/storage/app/media/guidelines/alergia/Klinicka_imunologia_a_alergologia-Sekundarne_imunodeficiencie.pdf, vyhledáno 13. 5. 2025.
4 Exford Centre for Evidence Based Medicine, www.cebm.net.

Reportáž GSK: Společný pokrok dlouhodobé inovativní léčby HIV

1 **Masenga, S. K. – Mweene, B. C. – Luwaya, E., et al.**: HIV-host cell interactions. *Cells*, 2023, 12, 1351.
2 **Caby, F.**; writing committee of the CD4+/CD8+ Ratio Working Group of the French Hospital Database on HIV (FHDH-ANRS CO4): CD4+/CD8+ ratio restoration in long-term treated HIV-1-infected individuals. *AIDS*, 2017, 31, s. 1685–1695.
3 **Figueroa, M. I. – Brites, C. – Cecchini, D., et al.**: Comparable efficacy and safety of dolutegravir / lamivudine to a three drug regimen amongst ARV naive people living with HIV with CD4 <200/mm3: The DOLCE study. Dostupné z: https://medinfo.gsk.com/5f95dbd7-245e-4e65-9f36-1a99e28e5bba/38e64744-598d-4b74-a596-9d93f89331cc/38e64744-598d-4b74-a596-9d93f89331cc_viewable_rendition__v.pdf, vyhledáno 10. 6. 2025.
4 **Ramgopal, M. N. – Castagna, A. – Cazanave, C., et al.**: Efficacy, safety, and tolerability of switching to long-acting cabotegravir plus rilpivirine versus continuing fixed-dose bictegravir, emtricitabine, and tenofovir alafenamide in virologically suppressed adults with HIV, 12-month results (SOLAR): a randomised, open-label, phase 3b, non-inferiority trial. *Lancet HIV*, 2023, 10, s. e566–e577.
5 **Orkin, C. – Hayes, R. – Haviland, J., et al.**: Anti-racist, anti-sexist, anti-ageist implementation science study of long-acting injectable cabotegravir and rilpivirine in clinic and community shows differences for women, older, and black participants: ILANA primary endpoint (M12) results. Prezentováno na 25th International AIDS Conference, 22.–26. 7. 2024, Mnichov, Německo, a virtuálně. Poster.
6 **Jonsson-Oldenbüttel, C. – Ghosn, J. – van der Valk, M., et al.**: Safety and effectiveness from the cabotegravir and rilpivirine implementation study in European locations study: phase 3b hybrid type III implementation study integrating cabotegravir + rilpivirine long-acting into European clinical settings. *J Acquir Immune Defic Syndr*, 2024, 96, s. 472-480.
7 **Kityo, C., et al.**: Switch to long-acting cabotegravir and rilpivirine in virologically suppressed adults with HIV in Africa (CARES): week 48 results from a randomised, multicentre, open-label, non-inferiority trial. *Lancet Infectious Diseases*, 2024, 24, s. 1083–1092.
8 **Overton, E. T. – Richmond, G. – Rizzardini, G., et al.**: Long-acting cabotegravir and rilpivirine dosed every 2 months in adults with HIV-1 infection (ATLAS-2M), 48-week results: a randomised, multicentre, open-label, phase 3b, non-inferiority study. *Lancet*, 2021, 396, s. 1994–2005.
9 **Overton, E. T. – Richmond, G. – Rizzardini, G., et al.**: Long-acting cabotegravir and rilpivirine dosed every 2 months in adults with human immunodeficiency virus 1 type 1 infection: 152-week results from ATLAS-2M, a randomized, open-label, phase 3b, noninferiority study. *Clin Infect Dis*, 2023, 76, s. 1646–1654.
10 **Smith, G. H. R. – Henry, W. K. – Podzamczer, D., et al.**: Efficacy, safety, and durability of long-acting cabotegravir and rilpivirine in adults with human immunodeficiency virus type 1 infection: 5-year results from the LATTE-2 study. *Open Forum Infect Dis*, 2021, 8, ofab439.
11 **Gibas, K. M. – Kelly, S. G. – Arribas, J. R., et al.**: Two-drug regimens for HIV treatment. *Lancet HIV*, 2022, 9, s. e868–e883.